

ORDER NUMBER: 544
DATE: February 14, 1978

*Closed out by
Resolution No. 209*

BEFORE THE WASHINGTON STATE ENERGY
FACILITY SITE EVALUATION COUNCIL

In the Matter of Enforcement)	76-E1
of Certification Agreement)	
WNP 1 and 4)	FINDINGS OF FACT,
)	CONCLUSIONS OF LAW,
Between the STATE OF WASHINGTON)	AND ORDER
DEPARTMENT OF FISHERIES, and)	
)	
THE WASHINGTON PUBLIC POWER)	
SUPPLY SYSTEM, and the WASHINGTON)	
STATE LICENSED COMMERCIAL FISHER-)	
MEN, as Intervenor)	
.)	

FINDINGS OF FACT

1. The Department of Fisheries (Fisheries), an agency of the State of Washington and trustee for food fish and fisheries resources which are the property of the State of Washington, on June 8, 1976, filed with the Washington State Energy Facility Site Evaluation Council a petition invoking the jurisdiction of the Washington State Energy Facility Site Evaluation Council (Council) alleging a salmon fish kill caused by the Washington Public Power Supply System (Supply System) involving the Supply System's No. 2 nuclear plant. Among other things, the petition requested a hearing by the Council under the provisions of the Site Certification Agreement to determine the loss and the responsibility for the loss, and for damages or replacement of the fishery resources allegedly destroyed. Subsequently, the petition was amended to substitute Washington Nuclear Projects Nos. 1 & 4, and the site certification thereof, in place of Nuclear Project No. 2.
2. The Supply System, a municipal corporation and joint operating agency of the State of Washington, created under RCW Ch. 43.52, responded by filing pleadings, denying the allegations of Fisheries and among other things also requested the Council to appoint a hearing examiner to determine the cause of the fish loss, the extent of the loss, and the Supply System's responsibility.

3. The Washington State Licensed Commercial Fishermen, an association composed of persons having purse seine, gill net, or troll line licenses issued by the State of Washington, on June 14, 1976, filed a complaint seeking relief similar in content to that requested by Fisheries. Subsequently, the Supply System denied such allegations.
4. The Council appointed Robert A. Felthous as hearings examiner and ordered that this dispute proceed to hearing.
5. The Supply System entered into a site certification agreement with the State of Washington on August 8, 1975, for the construction and operation of its Washington Nuclear Projects Nos. 1 & 4, (WNP 1 & 4).
6. The site certification agreement provides in paragraph IV(d)(1) that the "Supply System agrees to provide replacement and/or compensation as found to be necessary by the Council for any wildlife, fish and other aquatic life and ecosystem damage or loss caused by the project construction and operation."
7. The Supply System requested of the operating agencies that a low flow test be conducted in the Hanford reach of the Columbia River on April 10 -11, 1976. The planning and conduct of the test required the coordination by WPPSS with the operating agencies in consultation with fisheries management agencies.
8. The intake structures are designed in relation to minimum low flows as established by the Federal Power Commission in Grant County PUD's (Grant County) license for Priest Rapids Dam. The minimum licensed low flow is 36,000 cubic feet per second (cfs).
9. Intake structures are designed to be submerged in the Columbia River at the minimum licensed low flow level in order to provide cooling water to the nuclear power projects cooling system and also to all plant operations.

Project design falls within the meaning of project construction and operation.
10. During the test, data was obtained at the No. 2 nuclear project intake site gaging station which is downstream from WNP No. 1 & 4 intake approximately 600 feet. The change in river elevations between the two intake sites is insignificant so that the data obtained at the No. 2 intake site is applicable to the No. 1 and 4 intake as to river elevations. The projects are located approximately 40 miles downstream from Priest Rapids Dam.

11. As a result of an unusually low water level observed on September 13, 1975 by a Supply System contractor near the No. 1 and No. 4 intakes, the Supply System determined it was necessary to define the river elevation at minimum low flows. On January 15, 1976 the Supply System at a meeting requested the United Engineers and Constructors to perform a study to define the minimum water level at the No. 1 and No. 4 intake location. In order to provide proper precision, the Supply System and the United Engineers and Constructors (UE&C) decided to conduct an actual low flow test to establish the river elevation at WNP 1 & 4 intake with certainty. A computer model was used, in part, to aid in the test. Stability of the river was defined as 1/10 of a foot fluctuation in river surface elevation.
12. In the first week of March, 1976, a Supply System representative requested by telephone an informal opinion from Battelle Northwest Laboratories, a consultant to both the Supply System and UE&C, regarding the possibility of impacting fishery resources when conducting such a low flow test. The Supply System was advised by Battelle Northwest Laboratories (Battelle) that there might still be fry in the gravel in mid-March, but the fry should be out of the gravel by late March.
13. On March 9, 1976, a representative of the Corps of Engineers (Corps) contacted a Fisheries biologist and informed him that the Supply System intended to conduct a low flow test in late March, 1976, with Priest Rapids Dam outflows maintained for a 24-hour period at minimum licensed elevations. The biologist from Fisheries expressed concern for the fish, objected to a low flow test in March, 1976, and advised the representative from the Corps that fall chinook salmon fry would be in the salmon redds and would not emerge until mid or late April, 1976.
14. On March 10, 1976, the Supply System held a low flow test coordination meeting. Representatives from the Corps, Bonneville Power Administration, UE&C, Grant County PUD, and the Supply System were present. At the meeting the participants agreed to provide the Supply System the assistance necessary to enable it to conduct the low flow test. The roles of the agencies involved in the conduct of the test, were defined.

- (a) The Supply System, as the agency requesting the test, had overall responsibility for the communication and the coordination necessary to conduct the test.
 - (b) UE&C was responsible, on behalf of the Supply System, for the coordination and communication of the technical and biological aspects of the test.
 - (c) The role of the Corps was basically twofold:
 - (1) it was to lower the forebay or pool behind McNary Dam during the test, and (2) it was to coordinate and evaluate impacts relating to navigation and fishery concerns. The Corps acted as the channel of communication for Fisheries and the Supply System regarding any impacts to fishery resources on the Columbia River relating to the low flow test.
 - (d) The role of the Bonneville Power Administration (BPA) was basically twofold: (1) it was to adjust power load and dam operation requirements on the various hydroelectric projects on the Columbia River, in part, so that flows upstream from Priest Rapids Dam could be restricted to enable Grant County PUD to control its outflows at Priest Rapids Dam for a 24-hour period at minimum licensed levels, and (2) it was to provide a communication center on the weekend of the test to provide information to the test site communications coordinator relating to flow conditions at Priest Rapids Dam and to provide any other information or receive information regarding any problem that might arise.
 - (e) Grant County PUD's role basically was to provide
 - (1) the requested low flows at 36,000 cfs for a 24-hour period and (2) information to the BPA during the test regarding flow conditions.
15. At the meeting of March 10, 1976, the opinion of Battelle that the fry would be out of the redds by late March was mentioned by the Supply System. A tentative date of the weekend of March 27 - 28 for the low flow test was established.
16. On March 12, 1976, a Columbia River Fishery Management Flow Committee meeting was held with representatives from the BPA, Corps, Fisheries, Bureau of Reclamation, and the Mid-Columbia PUDs. A biologist from Fisheries in attendance advised that a 24-hour low flow test on

March 27 - 28, 1976, would damage fry because they would be in the redds and that the test should not be held before April 15. Representatives from the Corps and the BPA informed Fisheries that if there were objections to the test that they would not accommodate the Supply System's request and would recommend that the test be cancelled.

17. On March 15, 1976, Fisheries was first informed by the Supply System that it intended to perform a low flow test, and that it would probably be on March 27 - 28, 1976. A biologist with Fisheries advised the Supply System that there would be fry in the gravel at such time and the Department could, therefore, not approve.
18. On March 16, 1976, the Supply System advised the Chief of Fisheries Natural Production Division that Grant County PUD had a right to take the flows down to 36,000 cfs at any time; that the test could not be performed later in the spring due to flood control problems; that the test could not be done in the fall because it would cost too much from the loss of power production and it would set the Supply System's construction schedule behind on WNP 1 & 4.
19. On March 16, 1976 a biologist from Fisheries advised the biologist from Battelle that fry would not have emerged from the redds by March 27 - 28, 1976, and that they would be in the redds until mid or late April, 1976.
20. On March 18, 1976 the Chief of Natural Production Division of Fisheries advised the Supply System that Fisheries would approve the test for the weekend of April 17 - 18, 1976. In early March of 1976 the NMFS advised the Supply System that it would approve the test if Fisheries approved the test.
21. At no time did the Supply System seek the formal approval of Fisheries on the basis that the Grant County PUD had authority to go down to 36,000 cfs without approval of any particular agency.
22. On March 19, 1976 the Supply System took steps to reschedule the test for April 10 - 11, 1976.
23. In late March, the senior research scientist, Dr. Page, of Battelle first advised the Fisheries representative that the test was going to be conducted on April 10 and 11.

24. The Supply System assumed that after the test was re-scheduled to April 10 and 11 that the fry would be out of the gravel.
25. Fisheries neither approved nor formally objected to the Supply System or to the Corps for the low flow test conducted on the weekend of April 10 - 11, 1976.
26. Although the parameters of the test were largely developed before the concerns of Fisheries were expressed, neither Fisheries nor NMFS objected to the parameters of the test other than to request that the flow reductions during the test occur at the rate of one foot per hour to minimize stranding. This request was incorporated into the parameters of the test.
27. The Supply System invited representatives of Fisheries and NMFS to participate in the low flow test as observers. In late March, 1976, the Supply System requested Battelle to perform a stranding study during the test. The Supply System also requested of the operating agencies that flow reductions during the test occur at the rate of one foot per hour to minimize stranding.
28. The 24-hour time parameter for the test was developed without regard to the fish. Although the Supply System concluded that the fry would be out of the redds by late March, and that the only environmental impact to fishery resources would be stranding, out of deference to the concerns of Fisheries, the test was rescheduled for April 10 - 11, 1976.
29. On April 9, 1976, the Supply System held a meeting to coordinate the activities of various biologists in conducting the stranding study to be performed by Battelle. Representatives from Battelle, the Supply System, UE&C, Fisheries and the NMFS were present at that meeting. A biologist from Fisheries again advised that the salmon would be in the redds.
30. At the meeting of April 9, 1976, UE&C distributed copies of a computer model estimate of the river flow levels at various points in the Hanford reach of the Columbia River at hourly intervals, titled "Washington Public Power Supply System WNP 1 & 4 Proposed Schedule for Low Flow Test," and based on an anticipated starting time of 0200, April 10, 1976.

For communication with each other and the on-site coordinator a list of the names of the representatives and their telephone numbers from the Supply System, Battelle, UE&C, Fisheries and NMFS was distributed. All concerns were to be communicated to the on-site job coordinator so that adjustments could be coordinated.

31. The computer-model estimate of the flow regime during the low flow observations anticipated that Priest Rapids outflows might be at 62,000 cfs by approximately 2200 on April 9; dropping to 36,000 cfs at approximately 0200 on April 10, with a minimum flow of 36,000 cfs maintained at a constant level for 24 hours until approximately 0200 April 11, 1976. The starting time of the test contained an inherent flexibility based on when Grant County PUD was able to achieve 36,000 cfs outflow from Priest Rapids Dam. All participants were aware that the test could start two hours before or after the computer-model estimate of 0200. The length of the requested minimum flow would, however, remain at 24 hours. Following the conclusion of the 24 hour minimum flow period, the outflows from Priest Rapids Dam were "to return to normal." The phrase "to return to normal" was not defined at the pretest meeting on April 9, 1976. The participants who were more knowledgeable in power operations took the phrase to mean "return to whatever levels above 36,000 cfs that power demands and flow conditions dictate." Other participants believed the phrase to mean that flows approximating pretest levels could be expected.
32. Prior to the test, UE&C provided representatives of BPA, COE, Grant County PUD, NMFS, Fisheries, Battelle, and the Supply System with copies of the computer-model estimate of the flow regimes for the low flow test. The estimated schedule assumed that the pool level in feet at mean sea level behind McNary Dam was to be lowered from 338 feet mean sea level at 2200 on April 9, 1976, to minimum licensed elevations of 335.5 feet mean sea level and it be held constant at that level until 0700 on April 11, 1976. Grant County PUD instructed its employees to provide the flows as requested if possible. There was a possibility prior to the test that there would be too much water in the system and that Priest Rapids Dam could not control outflows at 36,000 cfs for the 24-hour period. During the week prior to the test, Grant County PUD drew down the forebays behind the Priest Rapids and Wanapum Dams to enable these two reservoirs to provide additional space to aid maintaining river flows for the test.

33. A representative and employee of UE&C was the local on-site test communication coordinator and served as a focal point for communications relating to the tests.
34. UE&C performed its role in the planning and conduct of the low flow test at the request and on the behalf of the Supply System. The details of conducting the communications and taking the measurements essential to the low flow test were left to UE&C although the Supply System retained the power to stop the test during its course.
35. During the low flow test biologists from Battelle acted at the request of and on behalf of UE&C and the Supply System.
36. The low flow test as actually carried out by the Supply System and UE&C consisted of three aspects: (1) a period of low flows requested from Priest Rapids Dam; (2) the lowering of the forebay behind McNary Dams; (3) a series of observations and recordings taken beginning at 0000 on April 10, 1976 and ending on 1100 on April 11, 1976. The low flow test was not performed according to the proposed schedule provided by the Supply System prior to the low flow test.
37. The forebay of the McNary Dam was lowered by the Corps of Engineers at approximately 2200 on April 9, 1976, from the 338 foot mean sea level to an elevation of 335 feet mean sea level at approximately 0200 on April 10, 1976. At 0700 on April 11, 1976, the on-site coordinator for the test contacted the Corps and withdrew the request for continued control of McNary Dam forebay elevation.
38. During the low flow test, the Supply System obtained useful data for the construction and operation of WNP 1 & 4. River surface elevations near WNP 1 & 4 declined until 0100 on April 11, 1976, at which time an elevation of 341.8 feet mean sea level was recorded, which level continued until 0500 on April 11, 1976, when a level of 341.77 feet mean sea level was recorded. The river fluctuated less than 1/10 of a foot during that ten hour period at WNP 1 & 4.
39. The Supply System, upon review of recorded data, concluded that the basic design parameter for the WNP 1 & 4 intake structure should be revised. The recorded data also was used by the Supply System to determine the recovery time of flows after they were resumed at the Priest Rapids Dam, thereby indicating the amount

of time it would take water to travel from the dam to the intake structures of WNP 1 & 4. The observations and data recorded until 1100 on Sunday morning, April 11, 1976, were obtained by the Supply System and are useful to the Supply System because of the potential effects upon the operation of the project.

40. At approximately 0500 on April 11, 1976, a representative of UE&C who served as the "communications coordinator" during the test contacted the BPA control center and withdrew any further request for minimum flow levels from Priest Rapids Dam at which time the communication coordinator was informed by the control center operator that the low flows would be continued. The additional time was utilized by the representative of UE&C to obtain more data.
41. When it became apparent, upon completion of the low flow test, that river flow would not be returned to pretest levels the on-site coordinator for the low flow test from UE&C requested a representative from the Supply System, at approximately 1045 on April 11, 1976, to contact Grant County PUD and request the flows be returned to the higher pretest levels because of concern he had for the fry surviving in the gravel.
42. The area of the Columbia River between Priest Rapids Dam and the upper end of the McNary pool is a major natural spawning area for fall chinook salmon. After the construction of Priest Rapids Dam, spawning by fall chinook salmon in this area of the river increased dramatically.
43. One of the principal areas for spawning within this area occurs at Vernita Bar, which is approximately five miles downstream from Priest Rapids Dam. There are also several other areas located downstream from Vernita Bar in which upriver fall chinook salmon spawn.
44. The redds at Vernita Bar began to be exposed when flows reach 56,000 feet cfs, prior to 0200, April 10, 1976. At approximately 0200 on April 10, 1976, flows had been reduced at Priest Rapids Dam to approximately 42,000 cfs. The 36,000 cfs minimum was not reached until 0900. The lag time for flows to reach Vernita Bar was approximately two hours.

By 0200 a large area of the Vernita Bar was exposed, and the exposed area increased until the morning of April 10, 1976, at which time the level stabilized.

Except for approximately 45 minutes, around Sunday noon, when water was spilled by the Priest Rapids Dam, the exposed areas remained the same until Sunday afternoon, April 11, 1976, at approximately 1500, at which time the water commenced covering the exposed redds.

45. Biologists from Fisheries, the NMFS, and UE&C were present on Vernita Bar to sample the redds on Saturday morning, April 10, 1976. Upon examination, fry were found in the redds.
46. The biologists from NMFS, Fisheries, and UE&C counted 961 total exposed redds and 199 partially exposed redds.
47. Fisheries biologist determined on Saturday morning, April 10, 1976, that the fry were viable and healthy and would survive until 0200 on April 11, 1976, the time that the biologist understood the low flows would terminate.
48. The Fisheries biologist had correctly determined that all of the fry would not be out of the redds by April 10, 1976.
49. When a Fisheries biologist informed a biologist from UE&C that the fry would probably survive until 0200 on April 11, 1976, the Fisheries biologist asked whether the test was still on the 24-hour schedule, and was advised that to the best of the UE&C biologist's knowledge, it was.

Eighteen redds were sampled by the biologists on Vernita Bar on April 10, 1976, five of which had no fry in them. During such sampling, the test coordinator from UE&C was again informed by Fisheries biologist that the fry would survive until 0200 on April 11, 1976. The Fisheries biologist understanding that the flow would increase at 0200 Sunday morning was confirmed by a telephone conversation with an operator at the Priest Rapids Dam. A further check at 2300 on April 10, 1976 by the Fisheries biologist reaffirmed his previous opinion that the fry would survive until 0200, April 11, 1976, an additional three hours.

50. By the afternoon of April 10, 1976 representatives of Fisheries, NMFS, UE&C, WPPSS, and Battelle had all become aware that some salmon fry were still in the redds.

No effort was made by any representative of any of these agencies to request that water be provided to protect the fry in the redds until approximately 1100 Sunday, April 11, 1976 when both representatives of the Supply System and NMFS requested Grant County PUD to return the flows to higher levels.

51. The test coordinator did not contact biologists of the NMFS or the Fisheries to inform them that flows were not returning to pretest levels at 0200, April 11, 1976 or to seek their advice regarding the fry and the effects of a continued dewatering.
52. The Fisheries biologist did not return to Vernita Bar after his last inspection at 2300 on April 10, 1976, concluding that the fry would survive until the water was turned on in accordance with his understanding of the test schedule.
53. At approximately 0800 on Sunday, April 11, 1976, the test coordinator informed the NMFS biologists that he had withdrawn the request for further low flow levels at 0500 hours, and that he had made the determination that the fish would survive. The NMFS biologists then returned to Vernita Bar, sampled four redds which had not previously been sampled, and found fry in the redds. Those fry did not survive the dewatering.
54. All fry contained in the redds that were totally exposed between Priest Rapids Dam and McNary Dam in the Hanford reach of the river suffered complete mortality.
55. If the flows had been returned to pretest levels at 0200, or shortly thereafter, on April 11, 1976, the salmon fry would have survived.
56. The power demands on April 10 - 11, 1976, were not unusual. The low flow test conducted at the request of the Supply System on such dates was an abnormal occurrence.
57. Grant County PUD considered 36,000 cfs or more, a normal flow. At 0200 April 11, 1976, the operators of Priest Rapids Dam had no instructions to increase the flow from 36,000 cfs. There are, however, means for spilling water upon proper request, if such is found to be necessary. Water that is spilled over a dam is not used by the dam for the production of power.

58. Prior to the test of April 10 - 11, 1976, the Supply System did not request Grant County PUD, the Corps, or the BPA that flows in the test area be returned to pretest levels after termination of the low flow test. The primary reason that the level of flows following the test was not discussed was that the pretest concern was whether there would be too much water flowing through the system to allow the test to be run.

The first request made by the Supply System, or any other person or agency after the low flow test, was made by a representative of the Supply System at approximately 1045 Sunday, April 11, 1976. That request asked that flows be increased above 36,000 cfs, but no request was made to return to pretest levels.

59. Subject to slight variations due to weather and river flow regime temporal and spatial distributing of redds in the upstream and downstream areas of the Hanford reach occur at nearly the same time on the basis of counts made by Battelle for the ten-year period 1967 - 1976.
60. During the low flow test, the Supply System had aerial photographs taken of the Hanford reach of the Columbia River. These photographs depict the exposed redds on and below Vernita Bar.
61. A Fisheries biologist counted 620 exposed redds depicted in the aerial photographs of Vernita Bar. The on-site count on Vernita Bar was 961 redds. This difference is 55%, that is, 55% of the aerial count has to be added to equal the known count. This percentage provides a reasonable basis for establishing the number of total exposed redds below the Vernita Bar.
62. A Fisheries biologist, from the photographs, counted a total of 294 redds exposed downstream from Vernita Bar. By applying the percentage set forth in Finding of Fact No. 65 to the photograph count the total exposed redds downstream from Vernita Bar is determined to be 456.
63. 1,417 redds were exposed on the Vernita Bar and the spawning area downstream from Vernita Bar.
64. 77.3% of the redds totally exposed had fall chinook fry in them. This percentage is determined by on-site sampling at the Vernita Bar. By random selection 22 redds were dug in to revealing fry in 17 of the redds.

65. 1,095 of the total exposed redds of 1,417 were occupied by salmon fry.
66. All fry in the exposed 1,095 occupied redds died.
67. At the time of the test 50% of the fry in the occupied redds had emerged.
68. Each spawning female chinook salmon, in the spawning areas involved, deposits an average of 5,077 eggs per redd.
69. Since each occupied redd contained an average of 5,077 eggs, at the time of egg deposition, the 1,095 occupied exposed redds at the time of egg deposition contained 5,559,315 eggs. The fry resulting from 50% of such eggs had emerged, leaving the fry of 2,779,658 eggs in the exposed redds at the time of the test. The fry of 2,779,658 eggs, therefore, died as a result of the low flow test on April 10 - 11, 1976.
70. 30% of the eggs of fall chinook salmon in the redds involved in this proceeding survive to become swim-up fry. Therefore, 833,897 swim-up fry were lost in the spawning areas involved in this proceeding.
71. One-third of the swim-up fry that emerge from the redds survive to become downstream migrants or smolts. Thus, the loss of 833,897 "wild" fall chinook upriver bright salmon is equivalent to a loss of 277,966 "wild" downstream migrants or smolts. The "wild" swim-up fry at time of emergence weigh approximately 1300 to the pound.
72. For purposes of determining replacement, the 833,897 swim-up fry is rounded to 834,000 and the 277,966 downstream migrants is rounded off to 278,000.
73. Wild migrants of the same size as hatchery migrants are more hardy and have a better survival percentage, i.e. 1.0% vs. 0.2% survival. The Council recognizes the biological impossibility of achieving the 1.0% value, but believes 0.2% can be improved upon and has taken a value near the midpoint, however on the conservative side.
74. It is technically impossible to replace the fish lost on April 10 - 11, 1976, but these fish can be compensated for.

75. Therefore, 834,000 upper river bright hatchery fry of 75 to 90 fry per pound when released, is equivalent to 278,000 "wild" migrants.
76. The life cycle of the fall chinook salmon from the time of egg deposition to returning adult spawner averages a four-year cycle. Most of the returning adult spawners from the fry lost on April 10 - 11, 1976 would have returned to spawn in the fall of 1979.
77. If replacement in the manner and quantity set forth in these findings commences with release of fry in the year 1979, it will take three additional years of equal quantity of salmon fry to compensate for the loss of salmon fry suffered on April 10 - 11, 1976.
78. The replacement can be accomplished by providing hatchery upper river bright chinook salmon fry each year, for a total of four years, commencing with the year 1979.
79. The replacement can be accomplished by the construction of sufficient facilities in the Hanford reach of appropriate specifications, size and design to provide reasonable assurance of such production.
80. The production and release of 834,000 of such fry from the facility described in these findings for four successive years will replace and compensate for the salmon loss of April 10 - 11, 1976. In order to accomplish such production, the facility must have an annual production capacity of at least 11,100 pounds of fry of 75 - 90 fish per pound.
81. The replacement facilities should include the development of adequate groundwater for fish cultural purposes. Both the quality and quantity of water to satisfy this requirement is available from Jackson Spring. The water delivery system should provide water to the existing hatchery facility for incubation purposes, piping from the groundwater development to the point of use, adequate pumps with appropriate wiring, modification of the existing adult holding pond for rearing purposes, and sufficient chest-type freezers to contain the fish feed.
82. The loss can be replaced and compensated for by the construction and operation of a temporary facility for a period of no less than four years adjacent to and in conjunction with the Priest Rapids spawning channel facilities owned by Grant County PUD.

83. Grant County PUD is a member of the Supply System; thus the Supply System is in a position to obtain adequate land and water for the construction and operation of a supplemental, replacement facility as well as necessary permits.
84. The design and construction criteria of replacement facilities should meet accepted construction standards and operational needs and be subject to Council approval.
85. By virtue of its experience, it is appropriate that replacement facilities be operated by Fisheries.
86. These facilities should be completed by the Supply System and operated by Fisheries in sufficient time to raise and release salmon fry in 1979 and for 3 successive years thereafter. Fisheries has the rights, duties and responsibilities in the operation as is customary and proper to accomplish the production and release of the salmon fry set forth in these findings.
87. All costs incurred by Fisheries in the operation and maintenance of the facilities reasonably necessary to rear and release the salmon fry herein contemplated for the required four years shall be reimbursed by the Supply System to Fisheries. Such operational costs to be reimbursed should be those in excess of the cost normally charged by Fisheries to Grant County PUD for operation of the existing fish culture facilities. Such reimbursement shall be as appropriate, but at least annually.
88. The Council has continuing jurisdiction by virtue of RCW 80.50.040 and provisions of the WNP 1 and 4 Site Certification Agreement.

CONCLUSIONS OF LAW

1. The Energy Facility Site Evaluation Council (Council), an agency of the State of Washington, is statutorily authorized to enforce the provisions of RCW Chapter 80.50 and the Site Certification Agreement entered into between the State of Washington and applicants for site certification.
2. The Department of Fisheries (Fisheries), an agency of the State of Washington, is the statutory trustee for the food fish and fisheries resources, pursuant to RCW Chapter 75.08, which are the property of the State of Washington.

3. The Washington Public Power Supply System (Supply System), a municipal corporation and joint operating agency of the State of Washington, created under RCW Chapter 43.52, is bound by the Site Certification Agreement it entered into with the State of Washington on August 8, 1975, for construction and operation of its nuclear projects No. 1 and No. 4 (WNP 1 & 4) pursuant to the provisions of RCW Chapter 80.50.
4. Paragraph IV(D)(1) of the Site Certification Agreement provides that "The Supply System agrees to provide replacement and/or compensation as found necessary by the Council for any wildlife, fish and other aquatic life and ecosystem damage or loss caused by the project construction and operation." The Supply System is bound by such provision which becomes the law of this proceeding.
5. The Council has jurisdiction over the Supply System and Fisheries relative to the subject matter.
6. The Council has the authority and jurisdiction to require the Supply System to provide replacement and/or compensation to Fisheries for any damage or loss caused to fishery resources by the Supply System's construction and operation of its WNP 1 & 4.
7. The Supply System is strictly liable under the terms of the Site Certification Agreement Paragraph IV(D)(1) for the loss to fishery resources caused by project construction and operation of WNP 1 & 4.
8. United Engineers and Constructors and its employees acted as agents for the Supply System in the conduct of the low flow test on April 10 - 11, 1976.
9. Battelle Northwest Laboratories biologists acted as agents for the Supply System during the conduct of the low flow test on April 10 - 11, 1976.
10. Under the theory of strict liability the Supply System is responsible for the actions or acts of its agents.
11. The low flow test was undertaken for the design and construction of the WNP 1 & 4 intake works. The design of the Supply System's WNP 1 & 4 projects falls within the meaning of the term "construction and operation" as employed in the Site Certification Agreement dated August 8, 1975. The loss to the fishery was caused by the construction and design of WNP 1 & 4.

12. But for the low flow test conducted by the Supply System and the activities of the Supply System and its agents on April 10 - 11, 1976, the loss to the fishery resources would not have occurred.
13. The actions of the Bonneville Power Administration, the Corps of Engineers, National Marine Fisheries Service, Washington Department of Fisheries, Grant County PUD, Battelle Northwest Laboratories, and other participants or nonparticipants in the low flow test do not provide a basis for supervening independent causation.
14. Grant County PUD had the legal authority to lower flows on the weekend of April 10 - 11, 1976, consistent with its Federal Power Commission license for Priest Rapids Dam.
15. It is necessary for the Supply System, in order to provide for the replacement and/or compensation of the loss to:
 - (a) Provide for the design and construction of temporary facilities, subject to the approval of the Council, capable of producing 11,100 pounds of fall chinook salmon per year for four years from the date the facilities are completed and made available to Fisheries; to obtain adequate land and water for the construction and operation of such facilities; and to pay for all operational expenses incurred by Fisheries reasonably necessary for the operation and maintenance of such facilities.
 - (b) Such facilities should be operated by Fisheries.
 - (c) The Council should retain jurisdiction over this proceeding.

From the foregoing proposed findings of fact and conclusions of law, the following order is proposed.

ORDER

IT IS HEREBY ORDERED That the Washington Public Power Supply System is hereby required: a) to design and construct temporary facilities, subject to the approval of the Washington Energy Facility Site Evaluation Council, capable of producing 11,100 pounds of fall chinook salmon per year for four years from the date the facilities are completed and made available to the Washington Department of Fisheries; b) to obtain

adequate land and water for the construction and operation of such facilities; and c) to pay for all operational expenses incurred by the Washington Department of Fisheries reasonably necessary for the operation and maintenance of such facilities, the details shall follow those as more specifically set forth in Findings of Facts Nos. 77 thru 87, which Findings of Fact are incorporated herein by reference.

IT IS ORDERED That such facilities shall be completed and operating in time for release of salmon fry in 1979;

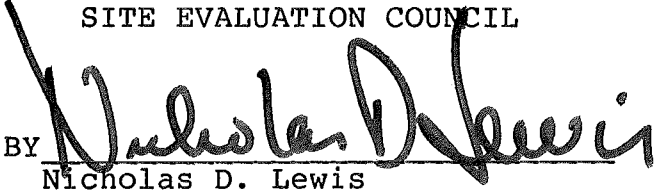
IT IS FURTHER ORDERED That the Washington Department of Fisheries operate such facilities for four years;

AND IT IS FURTHER ORDERED That the Washington State Energy Facility Site Evaluation Council, pursuant to the provisions of RCW Chapter 80.50 and the Site Certification Agreement for WNP 1 & 4 will maintain jurisdiction over this proceeding for a minimum of four years following acceptance of replacement facilities for operation.

ORDERED AND DECLARED By the Energy Facility Site Evaluation Council on February 14, 1978, in Olympia, Washington, in open meeting.

WASHINGTON STATE ENERGY FACILITY
SITE EVALUATION COUNCIL

BY


Nicholas D. Lewis
Chairman

ATTEST:

BY


William L. Fitch
Executive Secretary

APPROVED AS TO FORM:

BY


Thomas F. Carr
Assistant Attorney General